

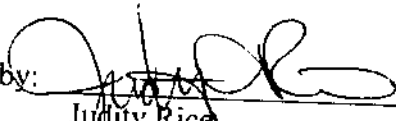
SOW 130075  
28 August 2013

STATEMENT OF WORK  
FOR  
E-2/C-2/LANDING SIGNAL OFFICER (LSO)  
NAVAL AVIATION TRAINING SYSTEMS  
CURRICULUMS REVISION AND MAINTENANCE (R&M)



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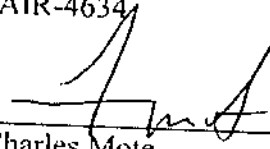
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Statement of Work  
For  
E-2/C-2/ Landing Signal Officer (LSO)  
Naval Aviation Training Systems  
Curriculums Revision and Maintenance (R&M)

1. SCOPE

This Statement of Work (SOW) defines the requirements for the R&M of curriculums for the following Naval Aviation Training Systems:

- a. E-2 /C-2 Fleet Readiness Squadron Training System (E-2 /C-2 FRS)
- b. E-2 Air Combat Training System (ACTS)
- c. LSO School

The tasks required in this SOW are within the scope of the Training Data Products Contract (TDPC) Multiple Award contract N61340-12-D-7108, SOW 110023, paragraphs 1.c, Scope; and 3.2.2.3, Detailed Capabilities, Instructional System Development (ISD) Requirements Functional Area 3: Sustainment.

1.1 Background

Aircrew training is currently accomplished by Commander, Aircraft Control Logistics Wing (COMACCLOGWING), Point Mugu, California, which is the Training Model Manager for the E-2C/D. Curriculum R&M is driven by changes in the weapon systems, engagement tactics, local course rules and directives, Flight Information Publications (FLIP), Naval Air Training and Operating Procedures Standardization (NATOPS) manuals, software, maintenance manuals, internal and external quality control, and instructor and student inputs. Other sources that necessitate change are improvement of technical content of the courses and changing training environments fostered by hardware and software advances.

1.1.1 E-2 /C-2A FRS

The E-2 /C-2A FRS provide combat capable pilots, Naval Flight Officers (NFOs), and C-2 crewmembers to fleet squadrons. Aircrews are trained to approximately 80 percent of full combat qualification with final, advanced training being carried out in the fleet squadrons. Aircrew training is currently accomplished by Carrier Airborne Early Warning Squadron One Hundred Twenty (VAW-120) at Naval Station (NS) Norfolk, Virginia (VA). VAW-120 is the training model manager for the E-2 /C-2A training system and is responsible for the technical accuracy of all instructional materials as well as the standardization of courseware revisions and coordination with fleet squadrons. Using emerging technology, the E-2C/D has undergone change and growth to stay abreast of the evolving mission. Over the past years, as the aircraft has changed, the curricula have been identified as Group 0, I, II or HE2K. Now the aircraft is at the E-2D Advanced Hawkeye iteration and rather significant changes have been put in place to accommodate that training.

1.1.2 E-2C/D ACTS Courseware

With contractor collaboration, tactical instructional programs have been developed and implemented for United States Navy (USN) E-2C/D aircrew. These training programs are based

upon fleet tactical job tasks for the 200, 300, and 400 levels of aircrew training. The E-2C/D ACTS syllabi consist of all training required to progress in qualification from FRS graduate through E-2C/D Carrier Aircraft Commander (CAPC - Pilot Level 300)/Combat Information Center Officer (CICO - NFO Level 300) to Instructor CAPC/CICO (Pilot/NFO Level 400). The E-2C/D ACTS courseware and syllabus is also known as the Carrier Based AEW Training Syllabus (CBATS). This program has resulted in specific behavioral objectives, syllabi, media, training materials, and sophisticated, highly active Secret Internet Protocol Router Network (SIPRNet)-based courseware to be distributed from the SHARP/LMS servers at various locations. This state-of-the-art E-2C/D ACTS training is a single common training program providing worldwide support to tactical crews operating the E-2C/D aircraft. This training program requires recurring operational and maintenance support in order to maintain currency and quality of the course materials as new tactics, operational procedures, and E-2C/D doctrine are changed to meet new threats. Therefore, to assure effective implementation of this new training system, courseware R&M support is required.

### 1.1.3 Landing Signal Officer School

The LSO School is the USN's only school for LSO training and is responsible for the LSO training continuum linking all stages of formal and on the job instruction to include managing and tracking skill set progression, practical experience, qualification completion, formal instruction, and virtual training. There are several levels of formal instruction conducted at LSO School: Initial Formal Ground Training (IFGT), Fleet Replacement Squadron/Training Command Formal Ground Training (F/TFGT), Advanced Formal Ground Training (AFGT), Airboss Formal Ground Training, Expeditionary Field Formal Ground Training, Carrier Air Wing Refresher Training, and various refresher and informal training classes. Courses are conducted in both an academic classroom setting and virtual trainer environment. Academics consist of mediated interactive lectures, Computer Based Training (CBT), seminars, doctrine review (document and text reading), exams, practical evaluations, and review/evaluation of video archives. Trainer events are conducted in Device 2H111. CBTs utilize an interactive multimedia format using PowerPoint, Flash, or Authorware. Lectures utilize multimedia slides using PowerPoint, full motion video playback, and smart boards. Students utilize Microsoft Office to view additional course material. CBTs are conducted on Device 2H139.

### 1.2 E-2 /C/D/C-2A FRS Description

E-2C HE2K Pilot, E-2C HE2K NFO and C-2A Pilot, and each of those includes CAT I, II, III, and IV training, encompassing 679 CAT I lectures and 189 CBTs. The FRS also trains C-2 Aircrewman, and the syllabi consisting of CAT I and CAT III training, encompassing 106 lectures and 12 CBTs. The FRS also owns E-2D Pilot and E-2D NFO training for CAT I, II, III and IV syllabi, encompassing 231 Instructor Led Training courses (ILT) and 210 Interactive Media Instruction courses (IMI). The E-2D syllabi also includes grade sheets and supporting event documents for all simulator and flight events. E-2D curriculum is tracked through the SHARP LMS. Courseware is in HTML format and developed in multiple software formats to include Toolbook and CoDE, and the E-2D courseware is tracked via SHARP/LMS, while the legacy E-2 and the C-2 courseware resides on stand alone machines and FRS training devices. The E-2 /C-2 FRS includes the courseware in TABLE I.

TABLE I. E-2C/C-2A/E-2D Training System

<b>E-2C MEDIUM</b>	<b>PILOT HRS.</b>	<b>E-2C NFO NFO (GRP II/HE2K) HRS.</b>	<b>C-2A PILOT HRS.</b>	<b>C-2A AIRCREW HRS.</b>	<b>E-2D PILOT HRS.</b>	<b>E-2D NFO HRS.</b>
MIL (Mediated Interactive Lecture)	112.5	1149.5	133	400	0	0
CBT (Computer Based Training)	29	151.0	31	106	0	0
IGR (Instructor Guided Review)	0	0	0	51	0	0
ILT (Instructor Led Training)	0	0	0	0	156.1	234.7
IMI (Interactive Media Instruction)	0	0	0	0	109.2	204.1
Simulator (WST, OFT, APT, TT)	96	318	66	0	118	152
LAB	12.5	58	18	418	19.5	22
FLT (Flight)	75.5	66	67.5	28	77	42
<b>TOTAL</b>	<b>325.5</b>	<b>1742.5</b>	<b>315.5</b>	<b>897</b>	<b>479.8</b>	<b>654.8</b>

### 1.2.1 E-2C/D ACTS Courseware

The E-2C/D ACTS courseware and syllabi consist of 106 CBT Lessons, supporting E-2C syllabi qualification progression from post-FRS training/Level 200 through 300 Carrier Aircraft Plane Commander (CAPC) and Combat Information Center Officer (CICO) through Level 400 Instructor CAPC and Instructor CICO. This syllabi is also known as Carrier Based AEW Training Syllabus (CBATS), and is resident on the SHARP/LMS server. This courseware also supports most of the E-2D Level 200, 300 and 400 syllabi, utilizing direct links to applicable lessons. The E-2C/D ACTS training system includes the courseware listed in TABLE II.

TABLE II. E-2C/D ACTS Training System

<b>ACTS COURSEWARE</b>	<b>IMIs</b>
E-2 Aircraft lessons	106
Lesson Exams	206
<b>Total</b>	<b>309</b>

### 1.2.2 LSO School

The LSO School is the U.S. Navy's school for LSO training and has several levels of instruction: Squadron LSO, Carrier Air Wing LSO, Training Command LSO, and a short course for carrier air officers. The LSO School provides dual CD sets containing the Automated Performance and Readiness Training System (APARTS) program, the LSO Reference Manual, LSO NATOPS Manual and CBT lessons, and lectures for remote use in fleet activities. The LSO School also delivers refresher training for these courses. Courses include both academic and trainer instruction. Academics consist of lectures, CBT, seminars, and review/evaluation of video archives. The LSO Training System consists of the courseware listed in TABLE III.

TABLE III. LSO Training System

<b>LSO Courseware Hours</b>	<b>MIL (Mediated Interactive Lecture)</b>	<b>CBT (Computer Based Training)</b>	<b>WS (Worksheet)</b>	<b>SEM (Seminar)</b>	<b>LSOT (LSO Training)</b>
Airboss Formal Ground Training	10.5	3	1	3	1
Advanced Formal Ground Training (AFGT)	10.5	3	3	1.5	1.5
Expeditionary Field Formal Ground Training	5.5	2	0	2	2
FRS/TRACOM Formal Ground Training (F/TFGT)	9	2	3	5.5	1
Initial Formal Ground Training (IFGT)	27	11	3	5	8
Total (124)	62.5	21	10	17	13.5

### 1.3 Government Furnished Resources

The Government will provide to the contractor current copies of all ISD documentation, student and instructor training materials, FRS/LSO Training Media and Materials System Quality Control Plan, and training systems management planning and operations documentation for the FRS/LSO Schools Training Media and Materials System. Other Government resources to be provided include:

- Copies of all Training Media and Materials System data previously developed as part of the R&M process - Included in this data is the latest listing of Government Furnished Property (GFP) to be placed in contractor custody.
- Technical data and information related to E-2/C-2 operations and performance, such as NATOPS Manuals, tactical publications, maintenance manuals, and existing training materials



c. Tactical information such as Tactical Manual (TACMAN), Fleet Lessons-Learned, After Action Reports, Tactical Memorandums (TACMEMOs), initiatives, message traffic and tactical training materials

d. Student and instructor training materials, training systems management planning and operations documentation for the FRS/LSO Schools - All FRS/LSO instructional content will be furnished on Government-owned hard disk storage medium as determined by the Contracting Officer's Representative (COR). The instructional content will be organized by training track to the extent practical.

e. Working office space for full-time contractor personnel - The Government reserves the right to change contractor office space if necessary and will provide the contractor with adequate and similar office space and SIPRNet access.

f. Access to on-base print facilities through Defense Automated Printing Service (DAPS), when available, and at contractor expense.

#### 1.4 Reviews and Approvals

The Naval Air Warfare Center, Training Systems Division (NAWCTSD) Project Manager (PJM) will provide overall project coordination among NAWCTSD, Type Commanders, on-site CORs, and the contractor. The NAWCTSD PJM will inform the contracting officer concerning the acceptability or non-acceptability of all deliverables and tasks performed by the contractor based upon the Contractor's Progress, Status, and Management Reports (CPSMR) and the recommendations of the on-site CORs. Failure to provide a trained, nominated, and NAWCTSD approved COR may result in suspension of service for that particular organization. NOTE: The NAWCTSD Procuring Contracting Officer (PCO) is the COR designation authority; commands may only nominate. The contract schedule will contain the latest list of the CORs by name and organization. The on-site COR will assist the NAWCTSD PJM in the technical administration of the contract performing the following functions:

a. Coordinate the contractor prepared CPSMR. The COR will recommend acceptance or rejection of the training data products that are delivered only to the on-site Government activity and are reported as delivered in the CPSMR.

b. Monitor the contractor performance in accordance with (IAW) the SOW, Management Oversight Performances of the Acquisition of Services (MOPAS), and Quality Assurance Surveillance Plan (QASP) documents. Coordinate with the contractor to establish, prioritize, and revise production schedules.

## 2. APPLICABLE DOCUMENTS

The contractor must abide by all applicable regulations, publications, manuals, local policies, and procedures listed in this SOW and in Section 2.1 Government Documents of the TDPC SOW. In the event of a conflict between documents referenced herein and the contents of this SOW, the contents of this SOW take precedence. Nothing in this SOW, however, supersedes applicable laws and regulations, unless a specific exemption has been obtained.

## 2.1 Government Documents

Department of Defense (DoD) and Department of the Navy (DoN) Security and Information Assurance (IA) Instructions, Manuals, and Handbooks

- DODI 8500.2 - Information Assurance (IA) Implementation, dated 6 Feb 2003
- DODI 8510.01 - DoD Information Assurance Certification and Accreditation Process (DIACAP), dated 28 Nov 2007
- DOD 8570.01-M, Change 3 - Information Assurance Workforce Improvement Program, dated 24 Jan 2012
- DON DIACAP Handbook (Unnumbered) - DoN DoD Information Assurance Certification And Accreditation Process (DIACAP) Handbook series, dated 15 Jul 2008

(The above IA documents are available at <http://navair.navy.mil/nawctsd/Resources/Library/IA/Index.cfm>.  
The NISPOM is available at <http://www.dtic.mil/whs/directives/corres/pub1.html>)

Defense Federal Acquisition Regulations Supplement (DFARS)

- DFARS 252.227-7013 - Rights in Technical Data-Noncommercial Items (Feb 2012)
- DFARS 252.227-7014 - Rights in Noncommercial Computer Software and Noncommercial Computer Software Documentation (Feb 2012)

(DFARS Clauses are downloadable from <http://farsite.hill.af.mil/vfdfara.htm>)

Naval Air System Command (NAVAIR) Regulations

- NAVAIR 5252.245-9500 - Government Property for the Performance of this Contract (May 2012)

(NAVAIR Clauses are listed in the Contract and the NAVAIR Clause Book available at <https://contracts.navair.navy.mil/documents/NAVAIR%20Clause%20Book%20Jan%202013.doc>)

USN documents

- OPNAVINST 3500 series - Readiness Report on Training Progress of Combat Aircrews, dated 1 Feb 2001
- OPNAVINST 3710.7 series - Naval Aviation Training and Operations Procedures Standardization (NATOPS)
- NTTP 3-22.1-Series - Tactical Employment Manuals
- NTRP 3-22.2-Series - Technical Manuals

CNAF Instr.

(Copies of the above documents will be provided by the Government upon request)

## 2.2 Non-Government Documents

American National Standards Institute (ANSI)/Institute of Electrical and Electronics Engineers (IEEE)

- IEEE Std 12207-2008, 2<sup>nd</sup> Edition - Systems and Software Engineering – Software life cycle processes

(Copies of this document are available from [www.ieee.org](http://www.ieee.org) or IEEE Service Center, 445 Hoes Lane, Piscataway, NJ 08854-1331.)

### 3. REQUIREMENTS

#### 3.1 General Requirements

The contractor shall provide all personnel, equipment, supplies, facilities, transportation, tools, materials, supervision, and other items, and non-personal services necessary to perform the R&M and support of all the E-2/C-2/ACTS/LSO School courseware and supporting systems (i.e., Information Technology (IT) systems) as defined in this SOW, except for those items specified as GFP and services. The contractor shall revise and maintain the training programs to ensure currency of content based upon the Government Furnished Information (GFI). The contractor shall perform training system R&M with on-site technical validation and product review being provided by the FRS/LSO pilot/aircrew Subject Matter Experts (SMEs) and Instructional Systems Specialists (ISSs). In addition to Government validated and recommended changes resulting from contractor quality control and external and internal analysis, the Government may direct changes resulting from weapons system changes, tactical publications, NATOPS manuals, local course rules, flight information publications, engineering change proposals, and miscellaneous documentation. All products developed shall be compatible with current instructional materials and shall comply with the associated Contract Data Requirements List (CDRL) item. While standardization of instruction shall be a critical objective of training development, the unique characteristics and requirements of each user, FRS, and LSO shall be considered and included in each deliverable where appropriate. For the purpose of this delivery order, all days shall be measured as calendar days.

##### 3.1.1 Technical and Management Work Planning

The contractor shall develop a detailed work plan identifying milestones, time phasing of each task, innovative approaches to improve productivity, demonstrate an understanding of the coordination required between numerous locations and anticipated travel to fulfill contract requirements. The contractor shall prepare the Technical and Management Work Plan (TMWP) IAW the CDRL.

##### 3.1.1.1 Travel

Travel may be required; however, travel to be performed outside a 75-mile radius from the training site, shall be subject to approval by the COR. When travel requires SME participation the hours shall be counted as scheduled SME hours completed for the applicable site. Any additional travel requirements shall be handled as over and above work IAW the contract terms.

##### 3.1.2 Risk Management

The contractor shall maintain a risk management process which identifies all risks and defines in detail how they will mitigate risks that might delay content quality and delivery. Identification of risk items and associated risk mitigation or avoidance shall require active participation at every level of the project by both contractor and Government personnel. The contractor shall identify risks early and shall have the overall responsibility and accountability for risk management, to include both programmatic and technical risks. The contractor shall implement

a process to collect and analyze metrics that quantitatively measure the development of risk in key areas and to identify problems in the project development life cycle as early as possible. The Integrated Product Team (IPT) members shall have the responsibility to participate in risk management board activities. Risk identification may come from other sources, requirements and design impacts, lessons learned, earlier corrective actions, and action items. Once identified and approved as an item that requires further attention, the contractor shall capture and manage the risks, and assign a rating based on the probability of occurrence and the severity of outcome. Risk items shall remain visible until resolved. The contractor shall define, document, manage, and apply a risk management process IAW IEEE Std 12207-2008, 2<sup>nd</sup> Edition, section 6.3.4. The contractor shall report risk information, data, and analysis in the CPSMR cited in 3.1.9. Identified risks will be discussed during IPT meetings and communicated during the regular In-Process Reviews (IPRs). For more detailed information on Risk Management and IPTs, refer to sections 3.1.1.2 and 3.1.1.3 in the TDPC SOW.

### 3.1.3 Change Requests (CRs)

The contractor shall implement Government-initiated CRs as specified herein. All curriculum changes will be validated by the Government and submitted to the contractor for correction. Change is defined as any updates, enhancements, additions, deletions, substitutions, or modifications to the existing training system. Prioritization of CRs which are in existence at the time of contract award will be established by the on-site COR for input into the system. The Government will have 14 days for acceptance or rejection of contractor completed CRs. No response will constitute acceptance by the Government for the contractor to place CR corrections into the curriculum. A detailed list of all CRs in work will be categorized and made available for FRS training personnel, Weapons School, LSO School, COR, and contractor viewing at all times. The contractor shall establish an electronic system for tracking CR acceptance and rejection rates, with a detailed definition for both, to allow the Government and contractor to monitor CR completion.

#### 3.1.3.1 CR Categories

The complexity of changes, modifications, updates, and enhancements are divided into the six categories (CAT) as defined in the TDPC SOW. Each of the six categories of changes will divide further into the following product lines:

- a. Text-based intermediate products
- b. Digital arts: graphics and text
- c. Digital arts: video, audio, and photography
- d. Design changes
- e. Content insertion
- f. Software and architecture

#### 3.1.3.2 Timeline for CRs

The contractor shall maintain currency by completing 100 percent of all CRs delivered on time with a due date during that reporting period. Only the COR or identified active duty aircrew may initiate Urgent/Priority CRs. The required completion time for CRs shall be as shown in TABLE IV.

TABLE IV. CR Completion Time

CR Categories	CR Priority	Completion Time*	Description
ALL	Urgent	7 days	Safety of Flight changes. Urgent interim changes notices to technical publications, issued by message or evaluation data indicating in-service curriculum materials contain defective instructions that, if followed, may result in injury or death as defined by OPNAVINST 3710.7 series. 100 percent of Urgent CRs shall be accomplished within this timeline.
ALL	Priority	14 days	Priority interim change notices to technical publications issued by message or evaluation data indicating that in-service curriculum materials contain defective instructions that, if followed, may result in damage to equipment as defined by OPNAVINST 3710.7 series.
CAT 1/2/3 (level A/B/C)	Routine	30 days	Text and digital art simple to medium complexity products.
CAT 4/5/6 (level A/B/C) CAT 1D/2D	Routine	60 days	Design Changes and Content Insertion requiring a simple to medium rework to the training/learning management system and high text and graphic rework levels.
Other	Routine	90 days	Media not falling into the categories determined above and agreed upon by the COR.

Note: Completion time is the number of calendar days the CR is in the contractor's possession beginning with CR assignment through Government final acceptance.

### 3.1.3.3 CR Submission

For each Government-initiated CR, the contractor shall cross-reference all courseware and instructional material for appropriate update to all occurrences. If CR category change is noted, the contractor shall submit additional recommended CRs to the Government for validation within 7 days. Databases created or maintained for Learning Objective (LO) cross reference shall be provided to the Government in a non-proprietary format, upon request. Change request tracking form will be provided upon contract award.

### 3.1.3.4 Common Courseware Analysis and Streamlining

The E-2C/D platforms have some commonality with regard to aircraft and mission systems. For all potential opportunities to streamline lessons between training tracks within the same Type/Model/Series (T/M/S), the contractor shall minimize multiple common lessons and shall streamline these lessons into singular products applicable across multiple platforms or syllabi (as appropriate) with Government approval of the identified lessons. The contractor shall prepare the Technical Report-Study/Services (Lesson Streamlining Report) IAW the CDRL. The following requirements shall apply:

- a. The contractor shall evaluate the Pilot and NFO syllabi when directed by Government and propose recommendations for lessons to be streamlined, along with rationale in a formal report suitable for presentation to the Government, by the end of the 2<sup>nd</sup> Quarter of the Base Year.
- b. For those lessons proposed by the contractor, and upon Government approval, the contractor shall alter existing lessons and/or create replacement lessons. The educational specialists representing the Model Manager from each affected T/M/S will review and approve all identified content from the new/alterd lessons prior to incorporation. Target approval date will be the end of the 4<sup>th</sup> Quarter of the Base Year.
- c. Timeline for completion of streamline of lessons content shall be at contractor discretion, but no later than the end of Option Year 1 (assuming the next Option Year is executed), or 12 months after Government approval, whichever comes later.
- d. Upon completion of lesson streamlining, that lesson shall be included in the “common core” curriculum.
- e. All lessons shall incorporate all features listed in other sections of this SOW (i.e. compatibility with approved style guide, etc.).

#### 3.1.4 Training Systems Quality Control

The contractor shall conduct validation, review, and evaluate all training tracks and courses. The contractor shall conduct this effort continuously over the entire period of performance and discuss feedback with the COR in a timely fashion to institute corrective actions when needed.

#### 3.1.5 Training Program Configuration Management

The contractor shall inventory, catalog, and maintain all curriculum materials described in 1.2 and document the baseline configuration of the training program courses in the Training Program Structure Document. This document will be used for life-cycle inventory and maintenance of all instructional media and academic support GFI. The contractor shall develop, and document in the Training Program Structure Document, a listing of all instructional media, which shall be sortable by file format, file size, edition date, applicable training track(s), and instructional mode such as IMI, CBT, Instructor-led Computer Based Training (ILCBT) or as applicable for current format deliverable types associated with all courseware. For configuration management purposes, PowerPoint format is considered synonymous with Computer-Aided Instruction (CAI). The contractor shall use a Digital Content Management System and all current Advanced Distributed Learning (ADL) Sharable Content Object Reference Model (SCORM) metadata tagging requirements shall apply. The contractor shall develop, maintain, and document in the Training Program Structure Document, Curriculum of Instruction (COI). The contractor shall prepare the Training Program Structure Document IAW the CDRL.

#### 3.1.6 Workforce

The contractor shall have all key personnel either on-board at the training site or have signed letters of intent, qualified with security clearances, or with pending clearances, no later than ten working days prior to Contractor Start Date (CSD). Deviation from the contractor's proposed workforce will be documented in the first Contractor Performance Assessment Report (CPAR).

### 3.1.6.1 Contractor Support Personnel Requirements

The contractor shall provide on-site SMEs and staff with aircrew and pilot knowledge of specified E-2/C-2/LSO/ACTS operational performance capabilities. Personnel shall have an understanding of security classification and mission sensitivity issues. The contractor support personnel shall include personnel of varying disciplines with required security clearances in place, providing immediate access to, and processing capability for, classified data and training products. The contractor personnel shall have the knowledge and skills necessary to verify that all information provided is handled, marked, and delivered IAW the requirements applicable to the classification level. The contractor shall possess the expertise and the workforce capability to revise and maintain previously delivered systems, including interactive courseware programs, as well as Power Point presentations, and will have ready access to all required source material for these programs. The contractor shall provide manning to adequately meet the hours highlighted in TABLE V for each platform to work CR issues only. The contractor shall not use these hours on other staffing or administrative requirements.

TABLE V. Subject Matter Expert Hours

SME Position	Task	SME hrs	Normal Window of SME hours (Mon-Fri)
Pilot	1A	18 HPW	0800-1630(8 hrs) NTE 9 HPD
	1B	36 HPW	0800-1630(8 hrs) NTE 9 HPD
	1C	72 HPW	0800-1630(8 hrs) NTE 18 HPD
	1D	144 HPW	NTE 36HPD
NFO	2A	18 HPW	0800-1630(8 hrs) NTE 9 HPD
	2B	36 HPW	0800-1630(8 hrs) NTE 9 HPD
	2C	72 HPW	0800-1630(8 hrs) NTE 18 HPD
	2D	144 HPW	NTE 36HPD
LSO	3A	12 HPW	0800-1630(8 hrs) NTE 8 HPD
	3B	18 HPW	0800-1630(8 hrs) NTE 9 HPD
	3C	27 HPW	NTE 9 HPD
	3D	36 HPW	0800-1630(8 hrs) NTE 9 HPD

TABLE V. Subject Matter Expert Hours

SME Position	Task	SME hrs	Normal Window of SME hours (Mon-Fri)
Pilot/NFO (ACTS)	4A	18 HPW	0800-1630(8 hrs) NTE 9 HPD
	4B	27 HPW	0800-1630(8 hrs) NTE 9 HPD
	4C	36 HPW	0800-1630(8 hrs) NTE 9 HPD
	4D	72 HPW	0800-1630(8 hrs) NTE 18 HPD

### 3.1.7 Key Personnel

The following contract positions are designated Key Personnel and shall meet the stated SOW requirements.

- Project Manager
- E-2D Courseware Configuration Coordinator
- LSO Learning Management System Specialist
- Subject Matter Expert
- Information Assurance Technician

#### 3.1.7.1 Résumés

The contractor shall provide the Résumés for all key personnel. The contractor shall submit résumés to the PCO after contract award. Failure to address all SOW requirements may result in a delay in acceptance or rejection of key personnel, thus resulting in a possible deduction and an initial poor performance rating in the CPARS at the onset of CSD. The contractor shall provide Résumés for key personnel replacements or substitutions during the period of performance per Section H of the contract.

#### 3.1.7.2 Project Manager

The PJM shall reside at NS Norfolk, Norfolk, VA and be a prime contractor employee. PJM duties include tracking and reporting, current status of all training system media masters, Computer-Based Training System (CBTS) data files, CRs, instructional materials, and proper operation of the supported electronic classrooms, student workstations and Learning Resource Centers (LRCs), LMS servers and their associated hardware, software, student stations, and courseware as covered in this SOW. The PJM shall provide the necessary program management functions to include planning, controlling, leading, managing, resourcing, scheduling, and clerical support for the efforts as required and specified in this contract. The PJM shall measure, monitor, and assess the progress of the work performed and costs incurred under the contract. The PJM shall lead the team on large projects or significant segment of large complex projects. The PJM shall analyze new and complex project related problems and creates innovative solutions involving finance, scheduling, technology, methodology, tools, and solution components. The PJM shall be a senior member of management with ability to commit the firm



and with extensive experience in training systems development. The PJM shall be responsible for highest-level client liaison, and shall have the ability and the means to secure necessary professional resources within the firm to meet requirements of project.

#### 3.1.7.2.1 PJM Experience

The PJM shall have a minimum of twelve years experience, ten years professional experience in USN aviation training systems development, production, operation or support, including four years of program management. Three years demonstrated supervisory and managerial experience in aviation training systems instructional systems design. Each post-graduate degree is equivalent to three years experience (post-graduate study may be substituted for experience at the rate of three credit hours of study for three months of experience, up to 36 credit hours).

#### 3.1.7.3 E-2D Courseware Configuration Coordinator

The contractor shall provide an E-2D Courseware Configuration Coordinator/Lead in support of the FRS and ACTS. This position shall provide direct support for the receipt, R&M, and implementation of E-2D courseware into the training system. This position shall directly liaison with the E-2D Fleet Introduction Team (FIT) Learning Center administration personnel and all associated contractors for all courseware deliverables to the Government. This includes handling and verification of all loading and proper operations of all courseware within the Integrated Training Center. This position shall ensure that all simultaneous curriculum training requirements and resources are efficiently planned for scheduling during all training evolutions. This position shall additionally function as the training department's SHARP coordinator loading, updating, and maintaining the Master Course Schedule (MCS) for each syllabus and the associated master grade sheets for each training track within the syllabus module of SHARP and SHARP LMS. This position shall have a thorough understanding of FRS/ACTS operations and training requirements for all training tracks. This position shall be available from 0730 until 1600 Monday through Friday.

#### 3.1.7.4 LSO LMS Specialist

The contractor shall provide a LMS Specialist in support of the LSO School. The position shall organize and manage scheduling tools, historical data, research data, mishap data, subject matter archives, qualification trackers, course critiques, reference materials, and databases (e.g. APARTS) associated with the LSO School. This position shall have an understanding of the programming language used in support of the LSO training material. This position shall have a thorough understanding of LSO School operations and training requirements for all training tracks and be proficient in database management. This position shall reside in the LSO School and shall perform the requirements listed in 3.2.10. This position shall be available from 0730 until 1600 Monday through Friday.

#### 3.1.7.5 Subject Matter Expert

The SME shall provide aviation expertise and high-level subject matter proficiency for work described in the SOW and advanced technical knowledge and analysis of highly specialized operational environment.

#### 3.1.7.5.1 SME Experience

The E-2C/E-2D/LSO curriculums R&M contractor shall provide SMEs with extensive knowledge of E-2C/E-2D/LSO operational performance capabilities and complete understanding of E-2C/E-2D/LSO security classification and mission sensitivity issues. The SMEs shall have a minimum of two years' experience in the operation of the E-2C/E-2D/LSO weapons systems within the last seven years, or have a minimum of two years' experience working on revision and maintenance of E-2C/E-2D/LSO/ACTS courseware within the last five years.

a. Due to the recent standup of the E-2D, SME expertise is very limited. As determined by the Government, experience requirements may be considered transferable between similar platforms for similar SME positions.

#### 3.1.7.5.2 SME Responsibilities

The SME responsibilities shall include the following which shall be documented and tracked via the CR process as defined in SOW paragraphs 3.1.3.1 and 3.1.3.2:

a. Review curriculum, assess, and recommend improvements to the training program via the appropriate training management officials.

b. Attend required scheduled meetings and training (e.g., scheduling, standardization, phase head, safety systems working groups, Intelligence Updates, aircraft systems and weapons tactics briefings and conferences).

c. Update, modify, and maintain currency of curriculum to support platform specific training. Assess training, syllabus, and mission scenarios for effectiveness and recommend improvements to the training program to the Government.

d. Provide analysis of existing testing instruments and recommend changes to improve training baseline and measure proficiency of training objectives.

e. Review syllabi and recommend changes to the lessons based on NATOPS changes, engineering changes, Naval Aviation Technical Information Product (NATIP) changes, and evolving mission area changes and other governing documents as determined by the Government.

f. Review intelligence systems technology and ensure training materials and websites accurately reflect current systems and employment methodology.

#### 3.1.7.6 Contractor SME Training

The contractor shall be responsible for SME training and currency to adequately meet contract requirements. This includes any and all necessary training to assure SMEs are proficient in the understanding of the employment of the weapons platform. The Government will provide simulator time for proficiency training on a not-to-interfere basis.

#### 3.1.8 Security and Information Assurance

The contractor shall safeguard all classified information and meet all Security requirements identified in the DD Form 254 and the IA requirements specified below. The contractor shall enforce these safeguards throughout the life of the contract including the transport and delivery phases. Work will be performed up to and including the Secret level.

3.1.8.1 Information Assurance System Certification and Accreditation Support

The contractor shall integrate, configure, verify, document, and deliver software and hardware products that satisfy IA controls as defined in DODI 8500.2 for a Mission Assurance Category (MAC) III, Classified system. The contractor shall support the IA certification and accreditation process IAW DODI 8510.01, the implementing guidance contained in the DON DIACAP Handbook, and coordinating instructions from the Local IA Authority (i.e., Information Assurance Manager). When required by the Local IA authority, the contractor shall provide IA certification and accreditation information per DON DIACAP Handbook.

3.1.8.2 Information Assurance Technician (IAT) Certification

The contractor personnel on-site performing System Administrator tasks shall comply with DOD 8570.01-M, Change 3, (or latest version) certification requirements for the appropriate IAT Level II. Contractor personnel on-site accessing a DOD system shall complete a System Authorization Access Request-N (SAAR-N) form OPNAV 5239/14. The contractor shall obtain and submit the SAAR-N forms to the COR before access is granted to the DOD system.

3.1.8.3 Information Assurance Sustainment

For the LRCs and Classrooms, the contractor shall implement the Physical IA controls defined under the Physical and Environmental Category as defined in DODI 8500.2 for a MAC III, Classified system. The contractor shall designate one or more (up to one per geographic site) DON Application and Database Management System (DADMS) Technical Points of Contact (TPOCs). Upon submission of a Non-Disclosure Agreement, and approval by the DADMS Help Desk, DADMS TPOC duties shall include: registration of contractor supported hardware and software, monitoring and reporting of Last Date Allowed (LDA) for all supported software applications, association by Unit Identification Code (UIC) for all supported software, and registration of new software or new versions of software. The contractor shall report all software applications coming due for renewal (LDA within six months), and make recommendations for upgrades, conversions, elimination, or alternate strategies.

3.1.9 Contractor's Progress, Status, and Management Reporting

The contractor shall measure, monitor, and assess the progress of the work performed and costs incurred under the contract. The contractor shall prepare the Contractor's Progress, Status, and Management Report IAW the CDRL.

3.2 Detailed Requirements

3.2.1 Conferences and Meetings

The contractor shall conduct and participate in conferences and reviews to be held at the Government facilities. Conferences and reviews will be co-chaired by a Government and contractor representative. The contractor shall be prepared to explain the reasoning, assumption, and methodologies in arriving at particular conclusions, recommendations, or alternatives in the accomplishment of the tasks required by the contract. The contractor shall have key personnel and support to facilitate the conference. The contractor shall prepare the Conference Agendas and Conference Minutes IAW the CDRL. Except where noted herein, conferences and reviews shall be considered fulfilled when all of the following items are completed:

- a. A formal meeting has been conducted and the conference and reviews are presented to the Government.
- b. All action items requiring contractor response have been resolved.
- c. The Government has accepted the conference minutes.

#### 3.2.1.1 Post-Award Meeting

The contractor shall attend and participate in a post award meeting that will be held in a location to be specified by the Government. The meeting will take place within 60 days after award of this contract. The purpose of the meeting will include identification of Government and contractor POCs, Government Furnished Material/Information (GFM/GFI), and resolution of any other issues not addressed in the TMWP.

#### 3.2.1.2 In-Process Reviews

The contractor shall participate in all IPRs as defined in the TMWP. The purpose of the IPRs shall be to facilitate the verification of the contract requirements, exchange information, and discuss the status of the project objectives and project changes. The specific locations, dates, and duration of the conferences and reviews shall be agreed upon between the Government and contractor PJM. All IPRs shall include the following topics:

- a. Previous action items - Review of the Government and contractor action items from the previous conference, using an action item list.
- b. Project schedules with major milestones delineated such as site surveys, conferences, and developmental status of any supporting or newly developed material, review percentages, design, and testing for each phase in support of the FRS.
- c. CDRL status report – contract status report
- d. IT equipment status
- e. Problem areas – Areas that have been problematic or areas requiring Government decision and resolution.
- f. Program risks
- g. New action items - Preparation and finalization of new action items as a result of conference discussions
- h. Quality Control Results Brief per 3.2.3.

#### 3.2.2 Courseware and Training Product Delivery Systems and Authoring Tools

The contractor shall maintain and deliver all materials (courseware, guides, surveys, tests, briefing documents, lesson plans, lectures, and any other training content) in its current format or as agreed upon by the COR. The contractor shall make recommendations to the CORs/Assistant Contracting Officer Representatives (ACORs), NAWCTSD PJM, and the Government for upgrades, improvements, and changes in training delivery format and supporting systems and software no later than six months prior to the expiration or required transition of a legacy format due to authoring tool or LMS obsolescence or similar reason (such as due to Navy-Marine Corps Intranet (NMCI) software transition, IA security compliance, DADMS expiration, supporting vendor termination of support for any reason, hardware obsolescence, operating system (OS) incompatibilities, and due to periodic hardware refresh). Final approval of format will lie with the Government. The contractor shall make available the entire instructional course content on

Digital Versatile Disk (DVD) for distribution to fleet squadrons, wings, and other Government agencies when requested by the COR. The DVDs shall play on NMCI and stand-alone computers.

#### 3.2.2.1 Courseware Formats

Current courseware formats include a variety of source files as dictated in this SOW. Additionally, differing sub-source files often are combined into differing types of deliverable training courseware (i.e., CoDE, Toolbook, Captivate interactive courseware may have associated picture files, audio files, spreadsheet files, and other associated files). The contractor shall maintain the courseware in its delivered state at CSD until converted on a separate effort. The contractor shall maintain a test package containing performance test items that simulate skill and cognitive performance expected in job tasks and written test questions for all IMI embedded questions. The contractor shall prepare, revise, and maintain all event summary write-up sheets or grade sheets for simulator and in-flight events. The contractor shall revise exams and develop new practice quizzes. Authoring tools and courseware formats shall not be changed without Government authorization. The contractor shall make recommendations based on efficiency, effectiveness, instructional excellence or for significant training improvements that will benefit both the Government and the contractor.

#### 3.2.2.2 Learning Management Systems

The contractor shall support and maintain the Government directed LMS software applications for use as a training delivery system, to include patch updates and all student and instructor support facilitation.

#### 3.2.2.3 Style Guide

The contractor shall utilize the Government provided Style Guide for the courseware. No changes to approved conventions; such as background color, numbering, and fonts, shall be undertaken, unless requested by the contractor and approved by the Government. The contractor shall review all T/M/S curriculums each year for improvements to the instructional and educational quality, technical accuracy, and overall program acceptability.

#### 3.2.3 Quality Control Surveys and Results

The quality control effort shall address both formative and summative activities to ensure the quality of revised and newly developed lesson materials. The contractor shall incorporate formative quality control procedures throughout the development process for new lessons and apply when appropriate whenever existing lessons requires major update or modification. The contractor shall accomplish the summative quality control processes through both internal and external quality control activities. The contractor shall provide internal quality control questionnaires to replacement, refresher, and conversion aircrew. The contractor shall use commercially accepted practices to develop a schedule to ensure that all lessons are evaluated during the period of contract performance. Within the internal quality control program, the contractor shall conduct test item analyses and student response summary data analyses. The contractor shall implement external quality control by obtaining data from graduates and Commanding Officers of receiving fleet squadrons. The data collection shall address the effectiveness of the training as well as soliciting input for modifications or improvements to the curriculum. This task shall be a continuous effort conducted over the entire period of

performance and shall involve the analysis of quality control data, the identification of instructional deficiencies based on the data analyses, and the preparation of revision specifications to correct the deficiencies. The contractor shall document the results of this task in the Technical Report-Study/Services (Quality Control Surveys and Results Report) IAW the CDRL, and shall prepare a brief summarizing the results of the quality control effort during the IPR conference.

#### 3.2.3.1 Survey Process

The contractor shall use Zarca Survey Software as the tool to compile, analyze, and present results to the appropriate Training Department in graphical and text format. The contractor shall validate proposed survey instruments; notification emails addressee's and report requirements with the respective T/M/S Training Department. In addition, the contractor will enter student data into the Zarca software and generate Fleet Feedback (FFB) survey instruments based on timeframes specified by the COR. The contractor is responsible for user and sub-user account access, permissions on legacy FFB survey system, and maintaining the licenses. Equipment, software, and hardware purchases to facilitate paper or automated surveys shall be maintained by the contractor, and turned over to the Government. Until Zarca is fully implemented in platforms not currently utilizing Zarca, the existing system shall be maintained.

#### 3.2.4 Curriculum Changes Traceability R&M

The contractor shall utilize a Government authorized electronic system to allow the user (student or staff) to input, initiate, prioritize, categorize, and designate CRs from within the lesson. The contractor shall manage and apply a common process to accomplish traceability for all curriculum changes across all platforms utilizing the Government authorized online tool that provides "cradle-to-grave" data and information on the operation of all CRs. The system shall be integrated with the contractor's configuration management, workflow, commenting, inspection, reporting, and analysis tools to support increased efficiency, effectiveness, and continual improvement. The contractor shall monitor, track, and report the status of all internally and externally submitted CRs utilizing an online automated system. This system shall be utilized to determine process inefficiencies, work flow interruptions, and to develop metric data to standardize configuration control, validation, and prioritization of submitted CRs. The results will be populated in Distributed Online Management System (DOMS).

##### 3.2.4.1 IPT Meetings

The contractor shall coordinate, attend, participate, facilitate, and lead IPT meetings to be conducted monthly via Telecom/Webinar. IPT meetings shall provide a forum suitable for maintaining a continuous interchange of ideas and issues, to identify and resolve potential problem areas, seek process improvements, interchange of innovative technical solutions, and lessons learned. Contractor shall be responsible for all logistics requirements. The agendas shall be developed by the contractor and the IPT telecoms/meetings shall be documented in conference minutes and project/initiative action/task tracker, as cited in 3.2.1. Meetings will be held at a mutually agreed upon date and time. At no time shall the contractor accept guidance from the IPT that shall have a cost or schedule impact to this effort. In the event the IPT identifies an out-of-scope requirement or innovation, this shall be passed to the IPT Government lead. The Government lead will take this information and pass onto the Contracting Officer who will coordinate with the customer and will be the only entity to approve changes to the contract

scope, schedule, and cost. This system shall document metric evaluation data with analysis and solutions for project workflow and incorporate required changes to improve job performance and efficiencies on a continuing cycle.

### 3.2.5 Student Training Material R&M

The contractor shall revise and maintain student training materials. These materials shall include existing lessons, workbooks, and paper-based training materials (training guides, kneeboard cards). The contractor shall provide all hard and soft copies of Student Training materials, when required. The contractor shall prepare the Revisions to Existing Government Documents (Student Training Materials) IAW the CDRL.

#### 3.2.5.1 ACTS Student Training Material R&M

The contractor shall revise and maintain ACTS student training materials in support of Fleet E-2 ACTC training with oversight and implementation by the WING Training Department and E-2 /C-2 ACCLWS Weapons School will provide technical oversight and prioritization. These materials are currently limited to existing ICW Lessons, but may include other media as tactical training requirements evolve. The contractor shall, upon Government acceptance of the courseware, manifest the content IAW the most current ACTS Courseware Delivery Specification, and forward to the ACTS vendor for posting to ACTS servers/SHARP LMS. Additionally, the contractor shall provide copies of the most current versions of all source files for use in other courseware development efforts upon Government request. The contractor shall maintain software required for ACTS R&M. The contractor shall provide all hard and soft copies of ACTS Student Training materials, when required. The contractor shall document the training material changes in the Student Training Materials CDRL item cited above.

### 3.2.6 Instructor Training Material R&M

The contractor shall revise and maintain Instructor Training Materials. These materials include lesson plans, test package, on-screen lessons, Compact Disk-Read Only Memory (CD-ROM), DVDs, graphics, animation, and supporting audio files. The deliverables that are computer based shall be compatible with the installed computer systems at the FRS. The contractor shall provide all hard and soft copies of Instructor Training materials, when required. The contractor shall prepare the Revisions to Existing Government Documents (Instructor Training Materials) IAW the CDRL.

#### 3.2.6.1 FRS Curriculums Of Instruction

The contractor shall revise and maintain the COIs and MCSs for all training tracks taught by the command IAW Government directives (OPNAVINST 3500 series). Each COI and MCS shall be reviewed annually and when necessary revised to ensure the currency and accuracy of each syllabus. The contractor shall initiate the process when directed or necessary and deliver the appropriate documents to the ISD officer for submission up the approval chain of command.

### 3.2.7 ISD Working and Planning Documentation R&M

The contractor shall revise and maintain all Navy E-2/C-2/LSO training system ISD working and planning documents. The contractor shall prepare the Revisions to Existing Government Documents (Working and Planning Documentation) IAW the CDRL. Working and planning documents include:

- a. Media Selection and Syllabus Report
- b. Task Listings
- c. Job Task Listings

#### 3.2.8 Source Material Management

The contractor shall provide all final courseware, source files, source graphics, final graphics, media, authoring files, Commercial Item software, configuration management tools, and all software and training documentation to the Government with unlimited rights (DFARS 252.227-7013/7014), or with a plan to implement the objectives over the program life cycle with less than unlimited rights provided to the Government, without royalties, recurring license or run-time fees, use tax, or similar additional payments. The contractor shall manage the instructional media and source materials used in the production of instructional media to provide for future changes and portability of the courseware. Word processing, spreadsheet, and database tapes and disks used for revising and processing all other deliverables required in this SOW shall be included in the source material. The contractor shall prepare the Instructional Media Package (Source Material) IAW the CDRL.

#### 3.2.9 Training System Status Monitoring and Reporting

The contractor shall monitor, track, and report the status of FRS and LSO training systems, and production and assembly of all student and instructor material handouts. The contractor shall conduct validation of training materials and evaluations of training capabilities of the LSO School courses including IFGT, F/TFGT, AFGT, Air Boss, Expeditionary Field, and the associated refresher and informal training for these courses. The contractor shall prepare the Revisions to Existing Government Documents (Training System Status Report (TSSR)) IAW the CDRL. The contractor shall configure, maintain, and manage all the following IT assets:

- a. Servers
- b. Network devices – switches, routers
- c. Classroom printers
- d. Classroom and Learning Center workstations
- e. Smart boards and Sympodiums
- f. Projectors
- g. Reproduction equipment (copiers)
- h. Joint Mission Planning System (or follow on systems) networking

#### 3.2.10 LRC/Classroom Support

The contractor shall perform the following tasks in support of classrooms and LRCs located at NS Norfolk, VA; and NAS Oceana, VA:

- a. The contractor shall provide a clerk to support the E-2C and D LRCs with a 20 minute response time Monday to Friday between the hours of 0600 - 2000 for the creation of student and instructor accounts, resetting accounts, enrolling classes in LMS, performing basic help desk functions, collaborating with the Security Manager with classified inventory; when required, perform update of manuals (i.e. NATOPS Flight Manual (NFM), Pocket Checklists (PCL), Aircrew Pocket Checklists (APCL), Naval Technical Training Publication (NTTP), Naval Tactical Reference Publication (NTRP), etc.) and activating student tests.



b. The contractor shall maintain a list for Government representatives on IT equipment trouble call status and timelines for resolution. Provide contractor POC for IT trouble calls, (i.e. make trouble call system/process entries for Government personnel reporting difficulties).

c. All systems, listed in NAVAIR Clause NAVAIR 5252.245-9500, shall be available for Government use 24-hours a day, seven days a week. Trouble calls initiated outside support hours will be addressed starting the next support day. Otherwise, the contractor response time will begin from the moment the COR notifies of a system failure until it is resolved.

d. Support of FRS and LSO classroom systems - The contractor shall provide instruction to instructors, students, and other operational squadron personnel, on the operation and utilization of all components of classroom electronic and automated data processing systems such as projectors, smart boards, and stand-alone networks, during presentation of courses and classroom lessons, training exercises, practice missions, and mission planning exercises. The contractor shall ensure the latest versions of all courseware are loaded in the designated classrooms.

e. Support of FRS and LSO Learning Center and classroom system and network - The contractor shall provide instruction on equipment use and maintenance expertise for FRS and LSO Learning Center and classroom systems. The contractor shall be responsible for initializing Local Area Network (LAN) workstations, file servers, and training system peripherals (such as projectors, smart boards and associated workstations), where such access is not already provided via NMCI/SIPRNet. Operation of the training system shall include monitoring network operating conditions, logging staff and students into the system, recording student grades, and maintaining the student registration file. The contractor shall develop operating data to maintain courseware configuration management. As commercial and non developmental item hardware and software changes and modifications are installed, the operating data procedures shall maintain software compatibility, subject to available resource limitations.

f. Support of FRS and LSO peripheral systems - The contractor shall provide instruction on equipment use and maintenance expertise for FRS and LSO School electronic classroom and network peripheral systems that include training system operating procedures for all equipment and peripherals other than the Learning Center and classroom network. This includes other student stations, monitors, projectors, displays and interface equipment, headsets, video players, and other curriculum development stations. The operating data and maintenance support shall include such procedures and expertise required to ensure training systems are operating properly. The contractor shall maintain an inventory of all supported hardware.

#### 3.2.10.1 E-2C/C-2 LMS/CBT Server Support

The contractor shall provide support of the LMS/CBT servers and LRC/Classrooms performing the following functions:

a. Install, troubleshoot, and modify all courseware for IMI and Computer Managed Instruction (CMI) systems and database problems.

b. Manage and maintain the classified download log and submit monthly download reports to the VAW-120 IA Manager (IAM).

c. Maintain the operating system, security updates, system configuration, printer drivers, anti-virus, and anti-spyware.

d. Maintain backup of data and configuration of each server.

- e. Maintain the LRC to handle student LMS administration, other LMS issues, and instructor support.
- f. Provide troubleshooting and maintenance of IT assets. Contractor support of Learning Center and classroom hardware includes replacement of failed individual electronic components.
- g. Maintain reproduction supplies (e.g. copy paper, binder combs, and binder machine), administrative supplies (e.g. dry erase markers and writing paper), and ink cartridges for all printers and plotters that support the Learning Center.

#### 3.2.10.2 Courseware Support

The contractor shall perform the following courseware support functions:

- a. Maintain 99 percent availability for LMS and courseware to classrooms and LRCs. (All locally supported Training Management System (TMS) courseware must be available. Failure to provide a portion of the courseware on one TMS but not another constitutes unavailable time).
- b. Recommend upgrades to delivery system software applications
- c. Recommend software upgrades for production of training content changes
- d. Maintain the LMS/training management system
- e. Recommend software and hardware capabilities to increase training system efficiency and effectiveness
- f. Present training to managers, administrators, staff, instructors, and/or students on how to use the learning, training, or content management system
- g. Reserve Weekends - The contractor shall leave equipment powered in an available state for two weekends a month, if required, and when identified by the COR.

#### 3.2.10.3 E-2C/C-2 Sustainment Services

The contractor shall perform specialized services to support the training system (Equipment is sustained under the Contractor Operation and Maintenance Services (COMS) contract for the E-2D and LSO training systems.). Training system support services, for E-2C/C-2 training sites, shall include the following:

- a. Performing scheduled and unscheduled preventive maintenance on the training delivery system, development system, classroom, and LRC hardware
- b. Maintaining an availability of 97 percent for electronic classroom instructor workstations and projectors and all equipment necessary to project/display the course material (i.e. switch boxes, Keyboard, Video, and Mouse (KVM) switches, etc)
- c. Maintaining an availability of 90 percent for student workstations in classrooms and LRCs, electronic white boards, and supported printers
- d. Maintaining the delivery system hardware
- e. Removing and replacing delivery system components
- f. Monitoring delivery system usage
- g. Troubleshooting delivery system performance issues
- h. Procuring, installing, and integrating delivery system upgrades
- i. Tracking changes to training system software applications caused by modifications to the Navy approved software application list known as DADMS

- j. Preparing DADMS requests for Government approved software applications
- k. Responding to emergency trouble calls for delivery system failure during scheduled classes and events
- l. Providing help desk support for remote students, instructors, and staff

#### 3.2.11 E-2/C-2/LSO Data Backup and Recovery

The contractor shall follow and implement the Government plan for data backup and recovery. This plan shall include the following:

- a. Learning Centers
  - (1) Weekly full backup to storage media
  - (2) Incremental back-up to storage media on remaining work days
  - (3) Storage media backups in four-week rotation
- b. Database Server
  - (1) Initial back-up to disk, with that backup captured daily on storage media (full backup daily with hourly transaction log backup during normal training hours)
- c. Off-site storage
  - (1) Fireproof containers with appropriate classification protection, IAW DODI 8510.01.
- d. Production Center
  - (1) Weekly full backup to storage media
  - (2) Incremental back-up to storage media on remaining work days
  - (3) Tape backups in four-week rotation
  - (4) Monthly storage media backup of critical lesson files in a one year rotation
  - (5) Annual archive of critical lesson files to Universal Serial Bus (USB) hard drive in two year rotation
- e. Production Database Servers
  - (1) Initial back-up to disk, with that backup captured daily on storage media (full backup daily with hourly transaction log backup during normal training hours)
- f. Resources in place
- g. Future Backup and Recovery
  - (1) Command Naval Air Forces Pacific/Atlantic (CNAP/L) are in the process of obtaining DIACAP certification for the Learning Centers and Electronic Classrooms. The contractor shall comply with DODI 8510.01 required backup and recovery procedures once they are approved by Naval Network Warfare Command (NETWARCOM).

#### 3.2.12 Mobilization and Transition Phases

##### 3.2.12.1 Mobilization Phase Requirements

The Mobilization Phase for this contract is defined as the 60-day period prior to the Contract Start Date as defined in the contract. During the Mobilization Phase, the incoming contractor shall cooperate with the Government and all authorized Government contractors in activities to prepare for a smooth transition from the preceding contract or delivery order. During this period, the incoming contractor shall:

- a. Complete security clearances for contractor personnel.
- b. Inventory GFM/GFI.
- c. Become familiar with all GFM/GFI, current media inventory, training materials, source codes, and other items listed in the current TSSR.
- d. Observe performance (over-the-shoulder) of all R&M tasks on a not-to-interfere basis.
- e. Perform other Mobilization tasks as necessary in preparation for assumption of full R&M responsibilities starting on the date specified in the contract.

#### 3.2.12.2 Transition Phase Requirements

The Transition Phase for this contract is defined as the 60-day period prior to the end of the base period or option period, should the Government choose not to exercise the subsequent option, or the 60-day period prior to contract end, should the Government exercise all options. During the Transition Phase, the incumbent contractor shall cooperate with the Government and the incoming contractor in activities to prepare for a smooth transition to the subsequent contract or delivery order. The incumbent contractor shall allow observance of the performance (over-the-shoulder) of all R&M tasks as an On-The-Job Training (OJT) function on a not-to-interfere basis throughout the Transition Phase.